## IN THE MATTER OF WT DOCKET NUMBER 05-235

Comments of Barry S. Newberger, Ph.D. in opposition to the proposed rulemaking to eliminate the 5 WPM Morse Code Requirement.

- I. Comment on assertion that Morse code requirement represents a barrier to entry into the amateur radio service.
- A. The Morse code requirement is no more a barrier to entry than any other licensing requirement. (To the extent that the written examination requirement and the Morse code requirement are distinguishable in this respect, it is that, by its nature, the Morse exam is less subject to rote memorization and regurgitation. However, that cannot be a justification for eliminating the Morse requirement.) With the possible exception of persons with certain physical disabilities there is no fundamental reason why this requirement should represent any greater hurdle to a potential licensee than any other licensing requirement. To the extent that such a bar to persons with physical disabilities is undesirable, a narrowly tailored rule addressing this concern could be adopted.
- B. To the extent the numbers of licensees in the Amateur Service is decreasing, eliminating the Morse code requirement is no solution. The code requirements have been reduced in several instances in response to perceived or actual decreases in the number of Amateur Radio licensees. If reducing the Morse code requirement has failed in the past to stem the falling Amateur licensee population, there is no reason to believe it will work now. On the contrary, it is reasonable to hypothesize that retention rates drop when the effort needed to gain entry in the first instance is small. When the investment is small at the outset, there is little incentive not to abandon it.
- II. Comment on the assertion that Morse code is antiquated; the military and coast guard have abandoned it.

A. Both the operational requirements and resources of these organizations are different than the Amateur Service. Thus, the communication operations of the military and coast guard do not provide a "model" for the Amateur Service. On the contrary, recent experience with the domestic disasters has underscored the shortcomings and limitations of the communications operations of these organizations, despite the sophistication of the technology that they can bring to bear. Moreover, a sensible objective of the Amateur Service in view of the military no longer using Morse is to provide a pool of operators skilled in Morse code communication.

B. Morse communication can be effected with inexpensive equipment operating at low power. Resources are commonly strained in disaster relief operations and particularly do in developing countries. Moreover, in such circumstances, there is no reason for the communication channel to be end-toend symmetric. Field stations communicating with an emergency operation center (EOC) can rely on low power, unsophisticated, equipment and simple antennas. Equipment at the EOC can compensate with high power to offset limitations of the receiving equipment in the field, and sophisticated receiving equipment with modern signal processing technology can compensate for low power transmitters in the field. This will be most effective in CW channels, less so on voice channels. Digital communication modes require equipment in the field that is too complex, too expensive and likely to consume too much power, particularly, in the early stages of relief. As relief efforts in the Andaman Islands in the wake of the tsunami of 26 December 04 demonstrated, circumstances do arise in which Morse code is effective means of communication, notwithstanding sophistication of modern communication technology.

Respectfully submitted, Barry S. Newberger, Ph.D. W5KH